



Replacement Sequence Listing
SEQUENCE LISTING

<110> KOHARA, Michinori
WATANABE, Tsunamasa
TAIRA, Kazunari
MIYAGISHI, Makoto
SUDO, Masayuki

<120> Oligoribonucleotide or Peptide Nucleic Acid Inhibiting the
Function of Hepatitis C Virus

<130> 382.1047

<140> PCT/JP04/000605

<141> 2004-01-23

<150> JP 2003/016750

<151> 2003-01-24

<160> 56

<170> PatentIn Ver. 2.1

<210> 1

<211> 500

<212> DNA

<213> Hepatitis C virus

<400> 1

gccagccccc	tgatgggggc	gacactccac	catgaatcac	tcccctgtga	ggaactactg	60
tcttcacgca	gaaagcgtct	agccatggcg	ttagtatgag	tgctcgtgcag	cctccaggac	120
ccccctccc	gggagagcca	tagtggtctg	cggaaaccgt	gagtacaccg	gaattgccag	180
gacgaccggg	tcctttcttg	gatcaaccgg	ctcaatgcct	ggagatttgg	gcgtgcccc	240
gcaagactgc	tagccgagta	gtgttggtgc	gcgaaaggcc	ttgtggtact	gcctgatagg	300
gtgcttgcca	gtgccccggg	aggtctcgta	gaccgtgcac	catgagcacg	aatcctaaac	360
ctcaaaaaaa	aaacaaacgt	aacaccaacc	gtcgcccaca	ggacgtcaag	ttcccgggtg	420
gcggtcagat	cgttggtgga	gtttacttgt	tgccgcgcag	gggccctaga	ttgggtgtgc	480
gcgcgacgag	aaagacttcc					500

<210> 2

<211> 500

<212> DNA

<213> Hepatitis C virus

<400> 2

cgattggggg	cgacactcca	ccatagatca	ctcccctgtg	aggaactact	gtcttcacgc	60
agaaagcgtc	tagccatggc	gttagtatga	gtgtcgtgca	gcctccagga	ccccccctcc	120
cgggagagcc	atagtgggtc	gcggaaccgg	tgagtacacc	ggaattgcca	ggacgaccgg	180
gtcctttctt	ggatcaaccc	gctcaatgcc	tggagatttg	ggcgtgcccc	cgcgagactg	240
ctagccgagt	agtgttggtg	cgcgaaaggc	cttgtggtac	tgcttgatag	ggtgcttgcg	300
agtgcctcgg	gaggtctcgt	agaccgtgca	ccatgagcac	gaatcctaaa	cctcaaagaa	360
aaaccaaacg	taacaccaac	cgccgcccac	aggacgtcaa	gttcccgggc	ggtggtcaga	420
tcgttggtgg	agtttacctg	ttgccgcgca	ggggccccag	gttgggtgtg	cgcgcgccca	480
ggaagacttc	cgagcggtcg					500

<210> 3

<211> 500

<212> DNA

<213> Hepatitis C virus

<400> 3

Replacement Sequence Listing

ttggggg	cga	cactccacca	tagatcactc	ccctgtgagg	aactactgtc	ttcacgcaga	60
aagcgtctag	ccatggcggt	agtatgagtg	ttgtgcagcc	tccaggaccc	cccctcccgg		120
gagagccata	gtggtctg	gaaccgggtga	gtacaccgga	attgccagga	cgaccgggtc		180
ctttcttgga	tcaacccgct	caatgcctgg	agatttgggc	gtgccccgc	gagactgcta		240
gccgagtagt	gttgggtcgc	gaaaggcctt	gtggtactgc	ctgatagggt	gcttgcgagt		300
gccccgggag	gtctcgtaga	ccgtgcatca	tgagcacaaa	tcctaaacct	caaagaaaaa		360
ccaaacgtaa	caccaaccgc	cgccacaggg	acgttaagtt	cccgggcggt	ggtcagatcg		420
ttggtggagt	ttacctgttg	ccgcgcaggg	gccccaggtt	gggtgtgcgc	gcgactagga		480
agacttccga	gcggtcgcaa						500

<210> 4
 <211> 500
 <212> DNA
 <213> Hepatitis C virus

gggccagccc	ccgattgggg	gcgacactcc	accatagatc	actcccctgt	gaggaactac	60
tgtcttcacg	cagaaagcgt	ctagccatgg	cgttagtagt	agtgtcgtgc	agcctccagg	120
accccccttc	ccgggagagc	catagtggtc	tgcggaaccg	gtgagtacac	cggaattgcc	180
aggacgaccg	ggtcctttct	tggatcaacc	cgctcaatgc	ctggagattt	gggcgtgccc	240
ccgcgagact	gctagccgag	tagtgttggg	tcgcgaaagg	ccttgtggta	ctgcctgata	300
gggtgcttgc	gagtgccccg	ggaggtctcg	tagaccgtgc	atcatgagca	caaattccaa	360
acccccaaaga	aaaaccaaac	gtaacaccaa	ccgtcgccca	caggacgtca	agttcccggg	420
tggtgggtcag	atcggttggg	gagtttacct	gttgccgcgc	aggggcccc	ggttgggtgt	480
gcgcgcgact	aggaagactt					500

<210> 5
 <211> 500
 <212> DNA
 <213> Hepatitis C virus

acccgcccc	taataggggc	gacactccgc	catgaatcac	tcccctgtga	ggaactactg	60
tcttcacgca	gaaagcgtct	agccatggcg	ttagtatgag	tgctgtacag	cctccaggcc	120
ccccctccc	gggagagcca	tagtgggtctg	cggaaccggg	gagtacaccg	gaattgccgg	180
gaagaccggg	tcctttcttg	gataaacccg	ctctatgcc	ggccatttgg	gcgtgcccc	240
gcaagactgc	tagccgagta	gcgttgggtt	gcgaaaggcc	ttgtggtact	gcctgatagg	300
gtgcttgcca	gtgccccggg	aggtctcgta	gaccgtgcac	catgagcaca	aatcctaaac	360
ctcaaagaaa	aacccaaaga	aacactaacc	gtcgccca	agacgttaag	tttcggggcg	420
gcggccagat	cgttggcgga	gtatacttgt	tgccgcgtag	gggccccaga	ttgggtgtgc	480
gcacagcaag	gaagacttcg					500

<210> 6
 <211> 500
 <212> DNA
 <213> Hepatitis C virus

acccgcccc	taataggggc	gacactccgc	catgaatcac	tcccctgtga	ggaactactg	60
tcttcacgca	gaaagcgtct	agccatggcg	ttagtatgag	tgctgtacag	cctccaggcc	120
ccccctccc	gggagagcca	tagtgggtctg	cggaaccggg	gagtacaccg	gaattgccgg	180
gaagactggg	tcctttcttg	gataaaccca	ctctatgcc	ggccatttgg	gcgtgcccc	240
gcaagactgc	tagccgagta	gcgttgggtt	gcgaaaggcc	ttgtggtact	gcctgatagg	300
gtgcttgcca	gtgccccggg	aggtctcgta	gaccgtgcac	catgagcaca	aatcctaaac	360
ctcaaagaaa	aacccacaga	aacactaacc	gtcgccca	agacgttaag	tttcggggcg	420
gcggccagat	cgttggcgga	gtatacttgt	tgccgcgcag	gggcccctaga	ttgggtgtgc	480
gcacgacaag	gaagacttcg					500

<210> 7

Replacement Sequence Listing

<211> 500
<212> DNA
<213> Hepatitis C virus

<400> 7
acccgcccct aataggggcg acactccgcc atgaaccact cccctgtgag gaactactgt 60
cttcacgcag aaagcgtcta gccatggcgt tagtatgagt gtcgtacagc ctccaggccc 120
ccccctcccg ggagagccat agtgggtctgc ggaaccggtg agtacaccgg aattgccggg 180
aagactgggt cctttcttgg ataaacccac tctatgcccg gtcatttggg cgtgcccccg 240
caagactgct agccgagtag cggtgggttg cgaaaggcct tgtggtactg cctgataggg 300
tgcttgcgag tgccccggga ggtctcgtag accgtgcacc atgagcacia atcctaaacc 360
tcaaagaaaa accaaaagaa acaccaaccg tcgcccacia gacgttaagt ttccgggagg 420
cggccagatc gttggcgagg tatacttgtt gccgcgcagg ggccccaggt tgggtgtgag 480
cgcgacaagg aagacttcgg 500

<210> 8
<211> 500
<212> DNA
<213> Hepatitis C virus

<400> 8
acctgcccct aataggggcg acactccgcc atgaatcact cccctgtgag gaactactgt 60
cttcacgcag aaagcgccta gccatggcgt tagtatgagt gtcgtacagc ctccaggccc 120
ccccctcccg ggagagccat agtgggtctgc ggaaccggtg agtacaccgg aattgccggg 180
aagactgggt cctttcttgg ataaacccac tctatgcccg gccatttggg cgtgcccccg 240
caagactgct agccgagtag cggtgggttg cgaaaggcct tgtggtactg cctgataggg 300
cgcttgcgag tgccccggga ggtctcgtag accgtgcacc atgagcacia atcctaaacc 360
tcaaagaaaa accaaaagaa acaccaaccg tcgcccagaa gacgttaagt tcccgggagg 420
cggccagatc gttggcgagg tatacttgtt gccgcgcagg ggccccaggt tgggtgtgag 480
cacgacaagg aaaacttcgg 500

<210> 9
<211> 500
<212> DNA
<213> Hepatitis C virus

<400> 9
acccgcccc taataggggc gacactccgc catgaatcac tcccctgtga ggaactactg 60
tcttcacgca gaaagcgtct agccatggcg ttagtatgag tgcgtacag cctccaggcc 120
ccccctccc gggagagcca tagtgggtct cggaaccggt gtagtacacc gaattgccgg 180
gaagactggg tcctttcttg gataaaccca ctctatgccc ggccatttgg gcgtgcccc 240
gcaagactgc tagccgagta gcggtgggtt gcgaaaggcc ttgtggtact gcctgatagg 300
gtgcttgcga gtgccccggg aggtctcgtg gaccgtgcac catgagcaca aatcctaaac 360
ctcaaagaaa aaccacacaga aacactaacc gtcgcccaca agacgttaag tttccgggag 420
gcggccagat cggtggcgga gtatacttgt tgccgcgcag gggccctaga ttgggtgtgc 480
gcacgacaag gaagacttcg 500

<210> 10
<211> 500
<212> DNA
<213> Hepatitis C virus

<400> 10
acccgcccct aataggggcg acactccgcc atgaatcact cccctgtgag gaactactgt 60
cttcacgcag aaagcgtcta gccatggcgt tagtatgagt gtcgtacagc ctccaggccc 120
ccccctcccg ggagagccat agtgggtctgc ggaaccggtg agtacaccgg aattgccggg 180
aagactgggt cctttcttgg ataaacccac tctatgcccg gccatttggg cgtgcccccg 240
caagaccgct agccgagtag cggtgggttg cgaaaggcct tgtggtactg cctgataggg 300
tgcttgcgag tgccccggga ggtctcgtag accgtgcacc atgagcacia atcctaaacc 360
tcaaagacaa accaaaagaa acaccagccg tcgcccacia gacgttaggt ttccgggagg 420

Replacement Sequence Listing

cggccagatc gttggcggag tatacttggt gccgcgcagg ggccccagg tgggtgtgcg 480
cgcgacaagg aagacttcgg 500

<210> 11
<211> 500
<212> DNA
<213> Hepatitis C virus

<400> 11
gcccccccc tgatgggggc gacactccgc catgaatcac tccccgtga ggaactactg 60
tcttcacgca gaaagcgtct agccatggcg ttagtatgag tgcgtacag cctccaggcc 120
ccccctccc gggagagcca tagtggtctg cggaaccggt gaggacaccg gaattaccgg 180
aaagactggg tcctttcttg gataaaccca ctctatgtcc ggtcatttgg gcacgcccc 240
gcaagactgc tagccgagta gcgttgggtt gcgaaaggcc ttgtggtact gcctgatagg 300
gtgcttgcca gtgccccggg aggtctcgta gaccgtgcat catgagcaca aatcctaaac 360
ctcaaagaaa aacaaaaaga aacacaaacc gccgccaca ggacgttaag ttcccgggtg 420
gcggtcagat cgttggcgga gtttacttgc tgccgcgcag gggccccagg ttgggtgtgc 480
gcgcgacaag gaagacttct 500

<210> 12
<211> 311
<212> DNA
<213> Hepatitis C virus

<400> 12
gcgtgtctca tgccccggccc cgctgggttct ggttttgcct actcctgctc gctgcagggg 60
taggcatcta cctcctcccc aaccgatgaa gggtggggta aacactccgg cctcttaagc 120
catttcctgt tttttttttt tttttttttt tttttttctt ttttttttcc tttcctttcc 180
ttcttttttt cttttctttt tcccttcttt aatgggtggc ccatcttagc cctagtcacg 240
gctagctgtg aaagggtccgt gagccgcatg actgcagaga gtgctgatac tggcctctct 300
gcagatcatg t 311

<210> 13
<211> 371
<212> DNA
<213> Hepatitis C virus

<400> 13
gtccagctgg ttcgtggctg gttacagcgg gggagacata tatcacagcc tgtctcgtgc 60
ccgaccccg c tgggtcatgt tgtgcctact cctactttca gtaggggtag gcattctacct 120
gctccccaac cgataaacgg ggagctaaac actccaggcc aataggccat ttcttttttt 180
tttttttttt ttttttcttt tttttttttt tttttttttt tttttttttt tttttttttt 240
ctttcttttg tttttttttt ttttcttctt ttgtgggtcc ccatcttagc cctagtcacg 300
gctagctgtg aaagggtccgt gagccgcatg actgcagaga gtgctgatac tggcctctct 360
gcagatcatg t 371

<210> 14
<211> 439
<212> DNA
<213> Hepatitis C virus

<400> 14
tgggcgggtga agaccaagct caaactcact ccattgccgg aagcgcgcct cctggattta 60
tccagctggg tcaactgtcg cgccggcggg ggcgacattt atcacagcgt gccgcgtgcc 120
cgaccccgct tattactcct tggcctactc ctactttttg taggggtagg ccttttctta 180
ctccccgctc ggtagagcgg cacacattag ctacactcca tagctaactg tccctttttt 240
tttggttttt tttttttttt tttttttttt ttttcttttt tttttttttt tttgtttctt 300
ttcctttctca tttccttctt atcttaatta cttcctttcc tgggtggctcc atcttagccc 360
tagtcacggc tagctgtgaa aggtccgtga gccgcagtag tcgagagatt gccgtaactg 420

Replacement Sequence Listing

439

gtatctctgc agatcatgt

<210> 15

<211> 347

<212> DNA

<213> Hepatitis C virus

<400> 15

cctggattta	tccagctggt	tcaactgtcgg	cgccggcggg	ggcgacattt	atcacagcgt	60
gccgcgtgcc	cgaccccgct	tattactcct	tggcctactc	ctactttttg	taggggtagg	120
ccttttccta	ctccccgctc	ggtagagcgg	cacacattag	ctacactcca	tagctaactg	180
tccctttttt	tttttttttt	tgtttccttt	ccttctcatt	tccttcttat	cttaattact	240
ttctttcctg	gtggctccat	cttagccccta	gtcacggcta	gctgtgaaag	gtccgtgagc	300
cgcagtactg	cagagattgc	cgtaactggg	atctctgcag	atcatgt		347

<210> 16

<211> 360

<212> DNA

<213> Hepatitis C virus

<400> 16

tttatccagt	tggtttaccg	tcggcgccgg	cgggggcgac	atttatcaca	gcgtgtcgcg	60
tgcccgaccc	cgcttattac	tccttagcct	actcctactt	ttcgtagggg	taggcctctt	120
tttactcccc	gctcggtaga	gcggcacaca	ttagctacac	tccatagcta	actgttcctt	180
tttttttttt	tttttttttt	tttttttttt	tttttttttt	tttttttttt	tttttttttt	240
ttttttttct	ttccttcctt	tctcaccttc	ttttacttct	ttcctgggtg	ctccatctta	300
gccctagtca	cggctagctg	tgaaagggtc	gtgagccgca	tgactgcaga	gagtgccgta	360

<210> 17

<211> 378

<212> DNA

<213> Hepatitis C virus

<400> 17

ggacttatcc	agttgggttca	ccgtcggcgc	cggcgggggc	gacatttttc	acagcgtgtc	60
gcgcgccccg	ccccgctcat	tactcttcgg	cctactccta	cttttcgtag	gggtaggcct	120
cttcctactc	cccgtcgggt	agagcggcac	acactaggta	cactccatag	ctaactgttc	180
cttttttttt	tttttttttt	tttttttttt	tttttttttt	ttttcttttt	tttttttttc	240
cctctttctt	cccttctcat	cttattctac	tttctttctt	ggtggctcca	tcttagccct	300
agtcacggct	agctgtgaaa	gggccgtgag	ccgcatgact	gcagagagtg	ccgtaactgg	360
tctctctgca	gatcatgt					378

<210> 18

<211> 374

<212> DNA

<213> Hepatitis C virus

<400> 18

ggatttgtcc	agttgggttta	ccgtcggcgc	cggcgggggc	gacattttatc	acagcgtgtc	60
gcgtgccccg	ccccgcctat	tactccitag	cctactccta	ctttctgtag	gggtaggcct	120
cttcctactc	cccgtcggat	agagcggcac	acattagcta	cactccatag	ctaactgttc	180
cttttttttt	tttttttttt	tttttttttt	tttttttttc	tttttttttt	tttttccttc	240
tttcttccct	tctcatctta	ttctactttc	tttcttggtg	gtccatctt	agccctggtc	300
acggctagct	gtgaaagggtc	cgtgagccgc	atgactgcag	agagtgccgt	aactgggtctc	360
tctgcagatc	atgt					374

<210> 19

<211> 354

Replacement Sequence Listing

<212> DNA

<213> Hepatitis C virus

<400> 19

```
tagatttatc cgggtggttc accgtgggcg ccggcggggg cgacatcttt cacagcgtgt 60
cgcatgcccg accccgccta ttactccttt gcctactcct acttagcgta ggagtaggca 120
tctttttact ccccgctcgg tagagcggca aaccctagct aactccata gctagttttc 180
tttttttttt tttttttttt ttttggtttt tttttttttc ctctttttcc gtattttttt 240
tttttcctct tttcttggtg gctccatctt agccctagtc acggctagct gtgaaaggtc 300
cgtgagccgc atgactgcag agagtgccgt aactgggtctc tctgcagatc atgt 354
```

<210> 20

<211> 21

<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 20

ggaacuacug ucuucacgca g 21

<210> 21

<211> 21

<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 21

gccauagugg ucugcggaac c 21

<210> 22

<211> 22

<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 22

aggccuugug guacugccug au 22

<210> 23

<211> 20

<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 23

gucucguaga ccgugcauca 20

<210> 24

<211> 21

<212> DNA

Replacement Sequence Listing

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 24

gcgaaaggcc uugugguacu g

21

<210> 25

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 25

gucucguaga ccgugcacca

20

<210> 26

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 26

gucucguaga ccgugcauca u

21

<210> 27

<211> 21

<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 27

ggaacuacug ucuucacgca g

21

<210> 28

<211> 21

<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 28

gccauagugg ucugcggaac c

21

<210> 29

<211> 22

<212> RNA

<213> Artificial Sequence

<220>

Replacement Sequence Listing

<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 29
aggccuugug guacugccug au 22

<210> 30
<211> 20
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 30
gucucguaga ccgugcauca 20

<210> 31
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 31
gcgaaaggcc uugugguacu g 21

<210> 32
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 32
gucucguaga ccgugcacca 20

<210> 33
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 3'-UTR target siRNA

<400> 33
ggcuccaucu uagcccuagu c 21

<210> 34
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 3'-UTR target siRNA

<400> 34

Replacement Sequence Listing

ggcuagcugu gaaagguccg u 21

<210> 35
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer
Ds5-41-S25

<400> 35
actcccctgt gaggaactac tgtct 25

<210> 36
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer
Ds3-8864-S25

<400> 36
aggatgattc tgatgacca tttct 25

<210> 37
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer
Ds3-9267-S23

<400> 37
gcgggggaga catatatcac agc 23

<210> 38
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer
Ds5-201-S25

<400> 38
tgatcaacc cgctcaatgc ctgga 25

<210> 39
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer
Ds5-261-S25

Replacement Sequence Listing

<p><400> 39 tagtggtggg tcgcgaaagg ccttg</p> <p><210> 40 <211> 25 <212> DNA <213> Artificial Sequence</p> <p><220> <223> Description of Artificial Sequence:primer Ds5-311-S25</p>	<p>25</p>
<p><400> 40 gagtgccccg ggaggtctcg tagac</p> <p><210> 41 <211> 23 <212> DNA <213> Artificial Sequence</p> <p><220> <223> Description of Artificial Sequence:primer Ds5-612-R23</p>	<p>25</p>
<p><400> 41 ccctcgttgc catagagggg cca</p> <p><210> 42 <211> 25 <212> DNA <213> Artificial Sequence</p> <p><220> <223> Description of Artificial Sequence:primer Ds5-857-R25</p>	<p>23</p>
<p><400> 42 aaccgggcaa attccctggt gcata</p> <p><210> 43 <211> 25 <212> DNA <213> Artificial Sequence</p> <p><220> <223> Description of Artificial Sequence:primer Ds3-9537-R25</p>	<p>25</p>
<p><400> 43 gactagggct aagatggagc cacca</p> <p><210> 44 <211> 23 <212> DNA <213> Artificial Sequence</p> <p><220></p>	<p>25</p>

Replacement Sequence Listing

<223> Description of Artificial Sequence:primer
Ds3-9611-R23

<400> 44
acatgatctg cagagaggcc agt 23

<210> 45
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer
Ds5-397-R23

<400> 45
gcggcggttg gtgttacgtt tgg 23

<210> 46
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer
Ds5-360-R25

<400> 46
ttaggatttg tgctcatgat gcacg 25

<210> 47
<211> 572
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:PCR product
siRNA-1

<400> 47
actcccctgt gaggaactac tgtcttcacg cagaaagcgt ctagccatgg cgtagtatg 60
agtgtcgtgc agcctccagg accccccctc ccgggagagc catagtggc tgcggaaccg 120
gtgagtacac cgggaattgcc aggacgaccg ggtcctttct tggatcaacc cgctcaatgc 180
ctggagattt gggcggtgccc ccgcgagact gctagccgag tagtgttggg tcgcaaaagg 240
ccttgtggta ctgcctgata ggggtgcttg gagtgcccc ggaggtctcg tagaccgtgc 300
atcatgagca caaatcctaa accccaaaga aaaaccaaac gtaacaccaa ccgccgccca 360
caggacgtca agttcccggg tgggtggtcag atcgttggtg gagtttacct gttgccgcgc 420
aggggcccc ggttgggtgt gcgcgcgact aggaagactt ccgagcggc acaacctcgt 480
ggaaggcgac aacctatccc caaggctcgc cagcccagg gcagggcctg ggctcagccc 540
gggtaccctt ggccccctcta tggcaacgag gg 572

<210> 48
<211> 817
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:PCR product
siRNA-2

Replacement Sequence Listing

<400> 48

```
actccccctgt gaggaactac tgtctttcacg cagaaagcgt ctagccatgg cgttagtatg 60
agtgtcgtgc agcctccagg accccccctc ccgggagagc catagtggtc tgcggaaccg 120
gtgagtacac cggaattgcc aggacgaccg ggtcctttct tggatcaacc cgctcaatgc 180
ctggagattt gggcgtgccc ccgcgagact gctagccgag tagtgttggg tcgcgaaagg 240
ccttggtgta ctgcctgata ggggtgcttc gagtgccccg ggaggtctcg tagaccgtgc 300
atcatgagca caaatcctaa accccaaaga aaaaccaaac gtaacaccaa ccgccgccc 360
caggacgtca agttcccggg tgggtggtcag atcgttgggt gagtttacct gttgccgcgc 420
aggggccccg ggttgggtgt gcgcgcgact aggaagactt ccgagcggtc acaacctcgt 480
ggaaggcgac aacctatccc caaggctcgc cagcccaggg gcagggcctg ggctcagccc 540
gggtaccctt ggcccctcta tggcaacgag ggcattgggt gggcaggatg gctcctgtca 600
ccccgcggct cccgccttag ttggggcccc acggaccccc ggcgtaggtc gcgtaatttg 660
ggtaagggtca tcgataccct cacatgcggc ttcgccgacc tcatggggtta cattccgctc 720
gtcggcgccc ccctaggggg cgttgccagg gccctggcac atggtgtccg ggttgtggag 780
gacggcgtga actatgcaac agggaatttg cccggtt 817
```

<210> 49

<211> 674

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR product
siRNA-3

<400> 49

```
aggatgattc tgatgaccca tttcttctcc atccttctag cccaggagca acttgaaaaa 60
gccctggatt gccagatcta cggggcctgt tactccattg agccactga cctacctcag 120
atcattgaac gactccatgg tcttagcgca ttttactcc atagttactc tccagggtgag 180
atcaataggg tggcttcatg cctcaggaaa cttgggggtac cacccttgcg agtctggaga 240
catcgggcca gaagtgtccg cgctaagctg ctgtcccagg gggggagggc tgccacttgt 300
ggtaagtacc tcttcaactg ggcagtaagg accaagctca aactcactcc aatcccggca 360
gcgtcccagt tggacttgct cagctgggtt gtggctgggt acagcggggg agacatatat 420
cacagcctgt ctgctgcccc accccgctgg ttcattgtgt gcctactcct actttcagta 480
ggggtaggca tctacctgct cccaaccga taaacgggga gctaaacact ccaggccaat 540
aggccatttc tttttttttt tttttttttt tttctttttt tttttttttt tttttttttt 600
tttttttttt tttttttctt tcttttgttt tttttttttt tcttcttttt ggtggctcca 660
tcttagccct agtc 674
```

<210> 50

<211> 748

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR product
siRNA-4

<400> 50

```
aggatgattc tgatgaccca tttcttctcc atccttctag cccaggagca acttgaaaaa 60
gccctggatt gccagatcta cggggcctgt tactccattg agccactga cctacctcag 120
atcattgaac gactccatgg tcttagcgca ttttactcc atagttactc tccagggtgag 180
atcaataggg tggcttcatg cctcaggaaa cttgggggtac cacccttgcg agtctggaga 240
catcgggcca gaagtgtccg cgctaagctg ctgtcccagg gggggagggc tgccacttgt 300
ggtaagtacc tcttcaactg ggcagtaagg accaagctca aactcactcc aatcccggca 360
gcgtcccagt tggacttgct cagctgggtt gtggctgggt acagcggggg agacatatat 420
cacagcctgt ctgctgcccc accccgctgg ttcattgtgt gcctactcct actttcagta 480
ggggtaggca tctacctgct cccaaccga taaacgggga gctaaacact ccaggccaat 540
aggccatttc tttttttttt tttttttttt tttctttttt tttttttttt tttttttttt 600
tttttttttt tttttttctt tcttttgttt tttttttttt tcttcttttt ggtggctcca 660
```

Replacement Sequence Listing

tcttagccct agtcacggct agctgtgaaa ggtccgtgag ccgcatgact gcagagagtg 720
ctgatactgg cctctctgca gatcatgt 748

<210> 51
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:PCR product
siRNA-5

<400> 51
actcccctgt gaggaactac tgtcttcacg cagaaagcgt ctagccatgg cgttagtatg 60
agtgtcgtgc agcctccagg acccccctc ccgggagagc catagtggc tgcggaaccg 120
gtgagtacac cggaattgcc aggacgaccg ggtcctttct tggatcaacc cgctcaatgc 180
ctggagattt gggcgtgccc ccgcgagact gctagccgag tagtgttggg tcgcaaaagg 240
ccttggtgta ctgcctgata ggggtgcttg gagtgccccg ggaggtctcg tagaccgtgc 300
atcatgagca caaatcctaa accccaaaga aaaaccaaac gtaacaccaa ccgccgc 357

<210> 52
<211> 345
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:PCR product
siRNA-6

<400> 52
gcgggggaga catatatcac agcctgtctc gtgcccagacc ccgctggttc atgttgtgcc 60
tactcctact ttcagtaggg gtaggcatct acctgctccc caaccgataa acggggagct 120
aaacactcca ggccaatagg ccatctcttt tttttttttt tttttttttt cttttttttt 180
tttttttttt tttttttttt tttttttttt ttttctttct tttgtttttt ttttttttct 240
tctttttggt ggctccatct tagccctagt cacggctagc tgtgaaaggc ccgtgagccg 300
catgactgca gagagtgctg atactggcct ctctgcagat catgt 345

<210> 53
<211> 197
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:PCR product
siRNA-7

<400> 53
tggatcaacc cgctcaatgc ctggagattt gggcgtgccc ccgcgagact gctagccgag 60
tagtggtggg tcgcaaaagg ccttggtgta ctgcctgata ggggtgcttg gagtgccccg 120
ggaggtctcg tagaccgtgc atcatgagca caaatcctaa accccaaaga aaaaccaaac 180
gtaacaccaa ccgccgc 197

<210> 54
<211> 100
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:PCR product
Page 13

Replacement Sequence Listing

siRNA-8

<400> 54
tagtggttggg tcgcgaaagg ccttgtggta ctgcctgata ggggtgcttgc gagtgccccg 60
ggaggtctcg tagaccgtgc atcatgagca caaatcctaa 100

<210> 55
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:PCR product
siRNA-9

<400> 55
gagtgccccg ggaggtctcg tagaccgtgc atcatgagca caaatcctaa 50

<210> 56
<211> 9611
<212> DNA
<213> Hepatitis C virus

<400> 56
gggccagccc ccgattgggg gcgacactcc accatagatc actcccctgt gaggaactac 60
tgtctttcacg cagaaagcgt ctagccatgg cgtagtatg agtgctcgtc agcctccagg 120
acccccctc cgggagagc catagtggtc tgcggaaccg gtgagtacac cggaattgcc 180
aggacgaccg ggtcctttct tggatcaacc cgctcaatgc ctggagattt gggcgtgccc 240
ccgcgagact gctagccgag tagtgttggg tcgcgaaagg ccttgtggta ctgcctgata 300
gggtgcttgc gagtgccccg ggaggtctcg tagaccgtgc atcatgagca caaatcctaa 360
accccaaaga aaaaccaaac gtaacaccaa ccgccgccca caggacgtca agttcccggg 420
tgggtggcag atcgttgggt gagtttacct gttgccgcgc aggggcccca ggttgggtgt 480
gcgcgcgact aggaagactt ccgagcggtc acaacctcgt ggaaggcgac aacctatccc 540
caaggctcgc cagcccagag gcagggccct ggctcagccc gggtagcctt ggccccctta 600
tggcaacgag ggcattgggg gggcaggatg gctcctgtca cccgcggct cccggcctag 660
ttggggcccc acggaccccc ggcgtaggtc gcgtaatttg ggtaaggcca tcgataacct 720
cacatgcggc ttcgccgacc tcatggggta cattccgctc gtcggcgccc ccctaggggg 780
cgttgccagg gccctggcac atgggtgtcc gggtgtggag gacggcgtga actatgcaac 840
agggaatttg cccggttgct ctttctctat cttcctcttg gctctgctgt cctgtttgac 900
catcccagct tccgcttatg aggtgcgcaa cgtatccggg atataccatg tcacgaacga 960
ctgctccaac tcaagtattg tgtatgaggc agcggacatg atcatgcata ccccggggtg 1020
cgtgccctgc gttcgggagg gcaactcctc ccgttgctgg gtggcactta ctcccacgct 1080
agcggccagg aatgccagcg tccccactac ggcaatacga cgccatgtcg atttgctcgt 1140
tggggcggct gctttctgct ccgctatgta tgtggagat ctctgcggat ctgttttcct 1200
tgtctccacg ctgttcacct tctcgccccg ccggcatgag acaatacagg actgcaattg 1260
ctcaatctat cccggccacg tgtcaggcca ccgcatggct tgggacatga tgatgaactg 1320
gtcgcctaca acggccctgg tgggtgtcga gttactccgg atcccacaag ctatcgtgga 1380
catgggtggcg ggggctcact ggggtgtcct agcgggcctt gcctactatt ccatgggtgg 1440
gaactgggct aaggtattga ttgtgatgct actttttgcc ggcgtcgacg gggagaccgg 1500
tgtgacaggg gggcagatag ccagaaatgc ctactcgctc acgaccctct tttcatctgg 1560
gtcggctcag aacatccagc tcataaacac caacggtagc tggcacatca acaggactgc 1620
cctgaactgc aatgactccc tcaacaccgg gtttcttgcc gcgctgttct acacgcacaa 1680
gttcaacgcg tccggatgtc cagagcgctt ggccagctgc cgccccattg acaagttcga 1740
tcaggggtgg ggtcccatca cttatgctga gcaggcggc caggaccaga ggccttattg 1800
ctggcactac gcacctaacc catgtgggat tgtatccgcg tcgaagggtg gtggtccagt 1860
gtattgtttc accccaagcc cagttgtagt ggggacgacc gatcgggttc gtgtccctac 1920
gtatagcttg ggggagaatg agacagacgt gctgctcctt aacaacacgc ggccgcccga 1980
aggcaactgg ttcggctgta cgtggatgaa cggcactggg ttcaccaaga catgcggggg 2040
cccccggtgt aacatcgggg ggggaggcaa taacaccttg acctgcccta cggactgttt 2100
ccggaagcac cccgcggcca cttacacaaa atgtgtgtcg ggacctggc tgacaccag 2160
gtgcttggtg gactacccat acaggctctg gcactacccc tgcactgcca actttaccat 2220

Replacement Sequence Listing

cttcaagggtt	aggatgtatg	tagggggcgt	ggagcacagg	ctcgatgctg	catgcaattg	2280
gacccgaggg	gaacgttgca	acttggagga	tagggataga	ttggagctca	gcccgtactt	2340
gctgtctaca	acagagtggc	agggtgctgc	ctgttctttc	accaccctac	cggtctgtgc	2400
cactggttta	attcatctcc	atcagaacat	cgtggacgtg	caatacctgt	acggtatagg	2460
gtcggcagtt	gtttcctttg	caatcaaagt	ggactataatc	gtgatacttt	tcctcctcct	2520
ggcggacgcg	cgcgtctgtg	cctgcttgtg	gatgatgctg	ctgatagccc	aggccgaggg	2580
cgccttagaa	aacctgggtg	tcctcaatgc	ggcgtccgtg	gccggagcgc	atggcattct	2640
ctccttcctt	gtgttccttc	gtgccgcctg	gtacatcaag	ggcaagctgg	tccccggggc	2700
agcatatgct	ttctatggag	tatggccgct	gtccttgctt	ctgctggcct	taccaccacg	2760
agcttacgct	atggagcggg	agatggctgc	atcgtgcgga	ggcgcgggtg	ttgtaggtct	2820
ggtactcttg	actttgtcac	catactataa	agagtccctc	gccaggctca	tatgggtggt	2880
gcaatatattt	atcaccagag	ccgaggcgca	cctgcaagtg	tggatcccc	ccctcaacat	2940
tcgggggggc	cgcgatgcca	tcacccctct	cgcgtgtgta	gtccacccag	agctaattct	3000
tgacatcacc	aaactcctgc	tcgccatact	cggtcgcgtc	atggtgctcc	aggctagcat	3060
aactcaagtg	ccgtacttcg	tacgcgccc	agggtcatt	cgtgcatgca	tgttgggtgcg	3120
gaaggtagcg	ggggggcatt	atgtccaaat	ggcctttgtg	aagctgaccg	cactgacagg	3180
tacgtacggt	tatgaccatc	taactccact	gcgggactgg	gccacgcgg	gcctgcgaga	3240
cctcgcggtg	gcagtagagc	ccgttgtctt	ctctgacatg	gagaccaagg	tcacacctg	3300
gggggcagac	accgcagcgt	gtggggacat	tatcttgggt	ctacctgtct	ccgcccgaag	3360
gggtaggagg	atacttctgg	ggccggccga	tagtcttgaa	gggcaggggt	ggcggctcct	3420
tgctcccatc	acggcctatt	cccaacagac	gcggggccta	cttggttgca	tcacactagt	3480
cctcacaggc	cgggacaaaa	accaagtcca	gggggaggtt	caagtgggtc	ccaccgcgac	3540
acaatccttc	ctggcgacct	gcgtcaatgg	cgcgtgctgg	actgtcttcc	atggtgccgg	3600
ctcaaagacc	ttagctggcc	caaaaggctc	aatcacccag	atgtacacta	atgtagacct	3660
ggacctcgtc	ggctggcagg	cgccccccgg	gtcgcgttct	ctgacaccat	gcacctgcgg	3720
cagctcagac	ctctattttg	tcacgagaca	tgctgatgtc	attccgggtg	gccggcgggg	3780
cgacagtagg	ggaagcctac	tctctccag	acctgtctcc	tacttgaaag	gtcctcgggg	3840
tggtccgctg	ctctgcccct	cgaggcacgc	ttgtggcatc	ttccgggctg	ctgtgtgcac	3900
ccgggggggt	gcgaaggcgg	tggttttcat	acccgttgaa	tcaatggaaa	ctactatgcg	3960
gtctccggtc	ttcacggata	actcatcccc	cccggccgta	ccgcagacat	tccaagtggc	4020
ccatctacac	gcccctactg	gcagcggcaa	gagcactaag	gtgccggctg	catatgcagc	4080
ccaagggtat	aagggtgctc	tcctgaacct	gtccgttgcc	gctaccttgg	gttttggggc	4140
gtatatgtct	aaggcacatg	gtatcgacct	caacatcaga	actggggtaa	gggccatcac	4200
cacggggcgc	cctattacat	attccaccta	tggcaagttc	cttgccgacg	gcggttggtc	4260
cgggggcgcc	tatgacatca	taatatgtga	tgagtgccac	tcaactgact	cgactaccat	4320
cttggggcatt	ggcacagtcc	tggaccaagc	ggagacggct	ggagcgcggc	tcgtcgtgct	4380
cgccaccgct	acgcctccgg	gatcgggtc	cgtgccacac	cccaatattg	aggaggtggc	4440
cctgtccaac	gctggagaaa	tccccttcta	cggcaaagcc	atccccattg	aggctcatca	4500
ggggggaaga	catctcattt	tctgccattc	caagaagaag	tatgacgagc	tcgccgcaaa	4560
gctatcagcc	ctcggactta	atgctgtagc	atattatcgg	ggtcttgatg	tgtccgtcat	4620
accgaccaac	ggagacgtcg	ttgtcgtggc	aacagacgct	ctaatagcgg	gctttaccgg	4680
cgactttgac	tcagtgatcg	actgtaacac	atgtgtcacc	cagacagtgc	atttcagcct	4740
ggatcccacc	ttcaccatcg	agacgacgac	cgtgccccaa	gacgcagtgg	cgcatcacca	4800
gcggcgggg	aggactggta	ggggcaggag	aggcatctac	aggtttgtga	ctccaggaga	4860
acggccctcg	ggcatgttcg	attcctcgg	cctgtgtgag	tgctatgacg	cgggctgtgc	4920
ttggtacag	ctcacgcctg	ctgagacctc	ggttaggttg	cgggcttacc	tgaatacacc	4980
aggggttgccc	gtctgcccag	accatctgga	gttttgggag	agcgtctcca	caggcctcac	5040
ccacatagat	gcccattttc	tgtcccagac	taaacaggca	ggagacaact	tcccctacct	5100
ggtagcatac	caagccacag	tgtgcgccag	agctcaagct	ccacctccat	catgggatca	5160
aatgtggaag	tgtctcatac	ggctcaaacc	cacgctgcac	gggccaacac	ccctgctgta	5220
taggctagga	gccgtccaaa	atgagatcac	cctcacacac	cccatgacca	aattcatcat	5280
ggcatgcatg	tcggctgacc	tggaggtcgt	cactagcacc	tgggtgctag	taggcggagt	5340
ccttgtagct	ctggctgcat	attgcttgac	aacaggcagt	gtggctcattg	tgggtaggat	5400
catcttgtcc	gggaggccgg	ctgttattcc	cgacagggaa	gtcctctacc	gggagttcga	5460
tgagatggaa	gagtgcgcct	cacacctccc	ttacatcgaa	cagggaatgc	agcttgccga	5520
gcaattcaag	cagaaggcgc	tcggattgct	gcaaacagcc	accaagcaag	cggaggctgc	5580
tgctcccgtg	gtagaatcca	agtggcgagc	ccttgagacc	ttctgggcga	agcacatgtg	5640
gaatttcac	agcgggatac	agtacctagc	aggcttgtcc	actctgcctg	ggaacccgcg	5700
gatagcatca	ctgatggcat	tcacagcctc	tatcaccagc	ccgctctcca	cccagaatac	5760
cctattattt	aacatctggg	ggggatgggt	ggctgcccac	ctcgccccc	ccagtgtctg	5820
ttcggctttc	gtgggcgcgg	gtatcgccgg	tgccgctgtc	ggcagcatag	gtcttgggaa	5880
ggtgcttgtg	gacatcttgg	cgggatatgg	ggcaggggtg	gctggcgcgc	tcgtagcttt	5940
taagatcatg	agcggcgagg	tgccctccac	cgaggacctg	gttaacttac	tccctgccat	6000

Replacement Sequence Listing

cctctctccc	ggcgccctag	tcgtcggggt	cggtgcgca	gcaatactgc	gtcggcacgt	6060
gggcccggga	gagggggctg	tacagtggat	gaaccggctg	atagcggttcg	cctcgcgggg	6120
taaccacgtt	tccccgcgc	actatgtgcc	tgagagcgac	gctgcggcgc	gtgttactca	6180
gacccctctc	ggccttacca	tcactcagct	gctgaagagg	cttcaccact	ggatcaatga	6240
ggactgctcc	acgccatgct	ccggttcgtg	gctaagggat	gtttgggact	ggatatgcac	6300
gggtgtgact	gacttcaaga	cctgggtcca	gtccaagctc	ctgccgcggt	taccgggggt	6360
ccctttcttc	tcgtgtcaac	gcggttacaa	gggagtctgg	cggggggacg	gtatcatgca	6420
gaccacctgc	ccgtgtggag	cacagatcac	cggacatgtc	aaaaacggtt	ccatgaggat	6480
cgtcgggcct	aaaacctgca	gcagcacgtg	gcatggaacg	ttccccatca	acgcatacac	6540
cacaggccca	tgcgcaccct	ccccggcgcc	aaactatttc	agggcgctat	ggcgggtggc	6600
cgctgaggag	tacgtggagg	ttacgcgggt	gggggatttc	cactacgtga	cgggcatgac	6660
cactgacaac	gtaaagtgcc	catgccaggt	tccggccccct	gaattcttca	ctgaggtgga	6720
tggagtgcgg	ttgcacaggt	acgctccggc	gtgcaaacc	ctcctacggg	aggaggtcac	6780
attccagggt	gggctcaacc	aatacctggt	tgggtcacag	ctcccatgcg	agcccgaacc	6840
ggatgtagca	gtgctaactt	ccatgcttac	cgacccctcc	cacatcacag	cagagacggc	6900
aaagcgtagg	ctggctaggg	ggctctcccc	ctccttggcc	agttcttcag	ctagccagtt	6960
atctgcgctt	tccttgaagg	cgacatgcac	tacccatcat	gactccccgg	acgttgacct	7020
catcgaggcc	aacctcctgt	ggcggcagga	gatgggcggg	aacatcacc	gcgtggagtc	7080
agagaataag	gtagtaattt	tggactcttt	cgatccgctc	cgagcggagg	aggacgagag	7140
ggaaccatcc	gttgcgggcg	agatcttgcg	gaaaaccaag	aggttcccc	cggcgatgcc	7200
catatgggca	cgcccggatt	acaaccctcc	gttgctagag	tcctggaaag	acccggacta	7260
cgccccctcg	gtgggtacag	ggcgcccgct	accacctacc	aaagctcctc	cgataccacc	7320
cccacggaga	aagaggacgg	tagtcctgac	agagtccact	gtgtcttctg	ccttggcgga	7380
gcttgctact	aagacctttg	gcagctccgg	gtcgtcggcc	gtcgacagcg	gcacggcaac	7440
tgctcctccc	gaccaggctt	ccgacgacgg	cgaccaagga	tctgacgttg	agtcgtattc	7500
ctccatgccc	cctcttgagg	gagagccggg	ggaccccgat	ctcagcgacg	ggtcttggtc	7560
taccgtgagc	gaggaggccg	gtgaggacgt	catctgtctg	tcaatgtcct	acacatggac	7620
aggcgctttg	atgcagccat	gcgcgcggga	ggaaaagcaag	tgccccatca	acccgttgag	7680
caactctttg	ttgctgcacc	acaacatggt	ctatgctaca	acatcccgcg	gcgcaggcct	7740
acggcagaag	aaggctcacct	ttgacagact	gcaagtcctg	gacgaccact	accgggacgt	7800
gctcaaggag	atgaaggcga	aggcgctccac	agttaaggct	aaactcctat	ccatagaaga	7860
agcctgtaag	ctgacgcccc	cacattcggc	cagatccaaa	tttggctatg	gggcaaagga	7920
cgtccggaac	ctatccagca	aggccgttaa	ccacatccgc	tccgtgtgga	aggacttgct	7980
ggaagacact	gagacaccaa	ttgacaccac	ctgcatggca	aaaagtgagg	ttttctgcgt	8040
ccaaccagag	aaaggaggcc	gcaagccagc	tcgccttatc	gtattcccag	acttgggggt	8100
tcgtgtatgc	gagaagatgg	ccctttatga	cggtgtctcc	acccttcctc	aggccgtgat	8160
gggtcctcca	tacggattcc	agtactcccc	tggacagcgg	gtcgagtctc	tggatgaatgc	8220
ctggaaatca	aagaaatgcc	ctatgggctt	ttcatatgac	acccgctggt	ttgactcgac	8280
agtcactgag	agtgcatacc	gtgttgagga	gtcaatttac	caatgttgtg	acttggcccc	8340
cgaagccaga	caggccataa	agtcgctcac	agagcggctt	tacattgggg	gtcccctgac	8400
caattcaaaa	gggcagaact	gtggctatcg	ccggtgccgc	gcgagtggcg	tgctgacgac	8460
cagctgcggt	aataccctta	catgttactt	gaaggcctct	gcagcctgtc	gagctgcaaa	8520
gctccgggac	tgcacgatgc	tcgtgaacgg	agacgacctc	gtcgatcatc	gtgagagtgc	8580
gggaacccaa	gaggatgagg	cgaacctacg	agtcttcacg	gaggctatga	ctaggtattc	8640
tgcccccccc	ggggaccgcg	cccgaccaga	atacgacttg	gagctaataa	catcatgttc	8700
ctccaatgtg	tcggtcgcg	acgatgcac	tggcaaaagg	gtatactacc	tcacccgcga	8760
cccctccacc	ccccttgcac	gggctgcgtg	ggagacagct	agacacactc	cagttaattc	8820
ctggctaggc	aacatcatta	tgtatgcgcc	caccttatgg	gcaaggatga	ttctgatgac	8880
ccatttcttc	tccatccttc	tagcccagga	gcaacttgaa	aaagccctgg	attgccagat	8940
ctacggggcc	tgttactcca	ttgagccact	tgacctacct	cagatcattg	aacgactcca	9000
tggcttttag	gcattttcac	tccatagtta	cctccagggt	gagatcaata	gggtggcttc	9060
atgcctcagg	aaacttgggg	taccaccttc	gcgagtctgg	agacatcggg	ccagaagtgt	9120
ccgcgctaag	ctgctgtccc	agggggggag	ggctgccact	tgtgttaagt	acctcttcaa	9180
ctgggcagta	aggaccaagc	tcaaactcac	tccaatcccc	gcagcgtccc	agttggactt	9240
gtccagctgg	ttcgtggctg	gttacagcgg	gggagacata	tatcacagcc	tgtctcgtgc	9300
ccgaccccg	tggttcatgt	tgtgcctact	cctactttca	gtaggggtag	gcactctacct	9360
gctccccaac	cgataaacgg	ggagctaaac	actccaggcc	aataggccat	ttcttttttt	9420
tttttttttt	tttttttttt	tttttttttt	tttttttttt	tttttttttt	tttttttttt	9480
ctttcttttt	tttttttttt	ttttcttctt	tttgggtggct	ccatcttagc	cctagtcacg	9540
gctagctgtg	aaaggtccgt	gagccgcatg	actgcagaga	gtgctgatac	tggcctctct	9600
gcagatcatg	t					9611